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ABSTRACT

In an analysis of stress and intonation, stress is shown to distinguish semantic and grammatical meaning on every level of language. It is suggested that the distinction between stress and intonation is particularly important in teaching English as a second language. Written texts and fabricated examples of dialogue are used, with a focus on speech as oral production of texts. It is proposed that a regular correlation can be seen between the degree of semantic meaning attached to a syllable and the degree of stress it carries. Rules for the distribution of functionally contrastive degrees of stress are shown to operate on the word level where roots are stressed in constrast with affixes. On the phrase level, lexical and structural words are distinguished by stress, and the semantic focus of the phrase is marked by primary stress. Stress operates beyond the phrase on the text level to link sentences and groups of sentences in connected discourse. Anaphoric stress is a cohesive device that expresses the relationship between referents and references. On the other hand, intonation is a nonstructural feature that utilizes pitch contours projected on phrase stress groups. This involves a culturally conditioned expression of attitude to the speaking situation. (SW)

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The Function of Stress in English by G.B. Deutsch

In an article that appeared in this journal several years ago on the subject of intonation,[1] I treated stress as one of the prosodic features subsumed under intonation for reasons that will follow. I have since come to see the relationship between stress and intonation in entirely different terms, however. And while a description of the operation of stress on various levels of language is still valid and essential to the purposes of language teaching, I now view such a description as illustrative of the underlying nature of stress as a device for textual cohesion. Moreover, as such it operates on the word level in precisely the same way that it does on the phrase and text levels. Here I find myself at odds with Halle and Keyser[2] who assume that stress assignment in words is conditioned by the phonetic property of the vowels whereas I feel that conversely the vowel qualities are conditioned by the stress pattern of the word which is determined by meaning.

The discussion of stress in English must be prefaced by a clarification of the relationship between stress and intonation. For while there is no confusion on the word level where it is clear that stress is an integral part of the phonolgical composition of words and intonation can hardly be seen as playing any role, the terms "phrase stress", "sentence stress" and "accent" have been used to describe the same phenomena as that of intonation contours. Therefore I think it must be shown that stress and intonation are distinct systmes with distinct functions.

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In this discussion of stress I shall be dealing with written texts and fabricated examples of dialogue. My concern will be with speech as oral production of texts in the sense of reading aloud and the reception of such readings by listeners. I emphasize the restriction of the material to written texts as consistent with a discussion of stress apart from intonation. For as I see it, intonation is not a feature of written texts but a paralinguistic feature of spoken utterance. Stress on the other hand, is a structural feature whose function is largely

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unrecognized due to the fact that it has virtually no graphic representation and must be supplied by the reader through his knowledge of stress rules.

The confusion between what constitutes stress and what constitutes intonation in spontaneous spoken utterances or in the oral interpretation of written texts stems partly from the use of pitch in both systems (although stress combines pitch with loudness and length) applied to the syllables of utterances to endow them with varying degrees of prominence relative to the surrounding syllables. Moreover, on the phrase level stress group and tone units are coextensive, the center of the intonation contour coinciding with primary phrase stress. This tends to blur the distinction between the two systems.

The functional differences between stress and intonation were partially obscured by structuralist descriptions of English which, in establishing the phonemic status of pitch, did so on the basis of its distinguishing statements from certain types of questions and different types of questions. Four levels of pitch were distinguished and labelled numerically. Pitch contours were assigned labels such as statement, yes-no question, etc. Pitch and intonation thus came to be associated with grammatical meaning.

Descriptions of English intonation have passed far beyond the early simplistic ones and distinctions between what were called "information" and "repeat" questions ascribed to contrasts in terminal pitch:

^{2}What's your ^{3}name$^{1}\downarrow$
^{2}What's your ^{3}name$^{3}\nearrow$

are now more meaningfully resolved in terms of the speaker's attitude. In this instance the rising terminal pitch of the repeat question expresses the speaker's feeling that he should not have to ask the question. Similarly, the distinction between a statement and a type of question with statement word

as in:

^{2}They're ^{3}coming^{1}↓

^{2}They're ^{3}coming^{3}↗

is also resolved in terms of the attitude of the speaker, both being statements, the rising pitch of the latter expressing the speaker's uncertainty about the truth of the statement. It seems obivious now that it is a matter of the distinction between interrogative sentences as linguistic structures and questions as psychological concepts that may be as easily attached to statements and imperatives as to interrogatives. Thus the pitch associated with intonation can be seen in these instances to consistently express attitudinal meaning and is clearly distinguished from stress whose meaning will be seen to be structural.

From the point of view of ESL/EFL teaching, the distinction between stress and intonation is a crucial one. On the one hand, stress must be recognized as an invisible but none the less real structural device ranking in importance with word order, function words and inflection and taught as part of the grammar of English rather than being relegated to some vague aspect of the phonology. Intonation on the other hand, must be recognized as a non-structural feature which utilizes pitch contours projected on phrase stress groups for culturally conditioned expression of attitude to the speaking situation. As such it is not pedagogically approachable in the same way. This is not to say that intonation does not adhere to any stretch of speech (be it spontaneous spoken utterance or orally interpreted text) in the sense that pitch contours will always accompany any stretch of speech. But whereas the intonation of a native speaker will reflect his attitude to the particular situation as well as something of his personality, the language learner will reflect these qualities against the background of

his first language, the approximation to native speaker-like intonation being a matter of acculturation rather than one of language training. In this connection Krashen's[3] distinction between subconscious language acquisition and conscious language learning seems to be relevant.

The nature of stress has been misunderstood from the point of view of how it is produced as well as of how it functions. Stress is generally impressionistically equated with loudness. However, it requires only the experience of listening to EFL students producing stress on the basis of instructions that "the stressed syllable is louder" to make a native speaking teacher aware that loudness is apparently not the only or even the principal feature of English stress. The simplest experiment of a native speaker pronouncing polysyllabic words and phrases will immediately show that primary stress in the word or the phrase is achieved by a rise in pitch and a slight lengthening of the vowel in the stressed syllable. Loudness may be an accompanying feature but it is certainly not crucial. From the functional point of view, stress has been mistakenly associated with emphasis whereas I believe it can be shown that on all levels of language stress is used to differentiate structural from semantic meaning or in other terms, code from message.

Although descriptions of English phonology[4] traditionally distinguish four degrees of stress for English, I would posit three functional degrees of stress on the levels of the word and the phrase with the following meanings common to both:
Primary stress /ˊ/ is the stress of semantic focus. The many instances on the word level where primary stress and semantic focus do not coincide do not negate the principle which can be traced back to Old English.[5] An analogy can be drawn with the basically phonemic writing system of English which has been compromised through internal linguistic change and foreign borrowings.
Secondary stress /ˋ/ is the stress of lexical meaning. A syl-

lable with secondary word stress or a word with secondary phrase stress indicates lexical meaning attached to that unit. Tertiary stress /˘/ is the stress of structural meaning. A syllable with tertiary word stress indicates that it is an affix or a successive syllable of a polysyllabic morpheme. A word with tertiary word stress indicates that it is a structural word.

On the word level, with the qualification "in principle", primary stress falls on syllables that represent root morphemes or the first syllable of a root morpheme. A word has one and only one primary stress which brings into focus the element with the highest degree of semantic meaning.

Root + Affix: fármer, áctive
Affix + Root: remóve, awáy
Affix + Root + Affix: inféction, remóvable
Polysyllabic root: blízzard, élephant

In compounds (words with more than one root) primary stress falls on the first root except in that class of compounds with rising stress contours:

téxtbook, líghter fluid, théatre ticket office
navy-blúe, Union Státion

Secondary stress falls on the second root of compounds or the first root of rising stress compounds:

fruit trèe, music bòx
chocolate pùdding, way oùt

In attempting to formulate rules for the occurrence of secondary stress, I have observed a class of morphemes that shows characteristics of both affixes and roots. Many of what I shall term "stem prefixes" are identical in form and meaning with normal or "root" prefixes while others occur only as stem prefixes.

Stem prefixes show the following characteristics:
1. They are bound to stems, i.e. forms that can occur independently, rather than to roots.
2. They are followed by plus juncture rather than by normal transition in the manner of compounds.
3. They are productive in coining new derived words or nonce-words.
Secondary stress falls on such stem prefixes or the first syllable when they are polysyllabic as in the following examples:

de- dè-emphasize, dè-brief
dis- dìsassemble, dìsunited
un- ùnworthy, ùn-American, ùn-birthday (nonce-word[6])
anti- ànti-war, ànti-nuclear

Secondary stress has the additional function of distinguishing form classes in such pairs as:

separàte (vb) / separăte (adj)
delegàte (vb) / delegăte (n)

Tertiary stress falls on affixes other than stem prefixes and on successive syllables of polysyllabic morphemes:

Root + Affix: paymĕnt, leadĕr
Affix + Root: prĕpare, rĕward
Affix + Root + Affix: ĭmportănt, rĕwardĕd
Stem prefix + Root + Affix: rewrittĕn, unfaithfŭl
Stem prefix + Stem + Root + Affix: inădmissăblĕ, unrĕwardĭng
Polysyllabic root: motŏr, delĭcăte, elĕphănt

To summarize: a regular correlation can be seen to exist between the degree of semantic meaning attached to a syllable and the degree of stress it carries:

1. A syllable with primary stress is interpreted as a root, the first syllable of a root or the first root of a compound, and the semantic focus of the word.
2. A syllable with secondary stress carries lexical or root meaning but contrasts with primary in that it is not the semantic focus of the word.
3. A syllable with tertiary stress may be an affix or a successive syllable of a polysyllabic morpheme. It contrasts with secondary stress in distinguishing roots from affixes. Two types of minimal contrast can be observed:

a) Stem prefix: rèwrí̀te, prè-cóoked
   Root prefix: rĕflé̀ct, prĕpáre
b) Root: wé̀ekdàỳ, ádvertising màn
   Affix: Móndăỳ, cháirmăn

Thus stress patterns reflect the morphemic composition of words. For while each stress has a range of related meanings, these become restricted in context. For example, a primary stress syllable followed by a secondary stress syllable represents the first root of a compound; but followed by a tertiary stress syllable it may represent the first syllable of a polysyllabic root or a root + affix. These cues provided by degree of stress bring the grammatical meaning of words into focus providing textual cohesion on the subsentential level.

The discussion of stress on the phrase level must begin with a consideration of words as phrase components. For whereas words in isolation are lexical units, as phrase components they become syntactic units. As such they fall into two categories which are often termed "stress" and "non-stress". Words in the stress category are characterized by phonological stability in that they maintain their phonological shape in utterances. Non-stress words on the other hand, undergo varying degrees of phonological reduction depending upon their syntactic position.

The stress category consists mainly but not exclusively of

major form class words; i.e., nouns, verbs, adjectives and adverbs plus certain items that are usually classified as function words. The non-stress category consists of words whose meaning is primarily structural: articles, pronouns, prepositions, auxiliaries, connectives, etc. In my previously noted paper the distinction between the stress and non-stress categories was illustrated by homophonous pairs of words, one member of which was a structural word in the non-stress category the other a lexical word in the stress category. In addition to some of the previously cited examples repeated here, I would add certain nominals which enter the non-stress category when they are used pronominally. In these cases phonological reduction does not occur, but the non-stress member carries secondary stress in primary phrase stress position and the primary stress is shifted to the verbal element.

one /wʌn/ (adj.) "They were expensive so I bought only óne."
/wən/ (pro.) "They were cheap, so I bóught ŏne."
some /sʌm/ (adj.) "Sòme people are always láte."
/səm/ (partitive art.) "there are sŏme péople outside."
that /ðæt/ (demonstrative adj.) "Do you know thàt mán?"
/ðət/ (conj.) "I didn't know thăt you were hére."
what /wat/ (interrog. adj.) "Whàt bóoks have you read?"
/wət/ (rel. pro.) "I don't know whăt to sáy."
cup /kəp/ (n.) "There's hot water and tea, but you'll need a cúp."
(pro.) "If you'd like some tea, Ill máke you a cùp."
people /pi:pəl/ (n.) "Mr. and Mrs. Jones are very nice péople"
(pro.) "I don't like to bóther pèople."
person /pərsən/ (n.) "Even a servant expects to be treated like a pérson."
(pro.) "That's no way to tréat a pèrson."

In dealing with stress on the phrase level we must first isolate the phrase stress group. Phrase stress groups are syntactic elements referable to sentences, the sentence being defined as

a non-dependent structure that contains a subject followed by a verb phrase with or with out a complement, with or without an adverbial and that may be preceded or followed by a sentence modifier and/or a vocative, referred to hereafter as SVCA and expemplifed as follows:

S VP C A SM V
The secretary typed these letters too hurriedly, apparently, Mr. Jones.

For purposes of stress analysis a phrase stress group may consist of one of the following structures:
(Stress group boundaries are indicated by a single bar /|/.)
1. A simple unexpanded SVCA structure as illustrated above. Relatively complex verb phrases may be included in a single stress group.

S V A
The customer should not have been kept waiting in the hall.

2. An unexpanded SVCA structure that functions as a clause in a compound or complex sentence.

John ate the apple|and then he went home.
I saw John| when he was eating the apple.

3. A word group that expands the subject or the complement elements of a SVCA structure.

How they were able to escape | is a mystery.
John ate the apple| that was lying on the table.

4. A word or word group that precedes or is embedded in a SVCA structure. Preceding elements may be various types of sentence modifier or vocatives. Embedded elements may include non-finite clauses, appositives and elements of coordinate constructions.

Naturally,| they were late for the meeting.
In the end,| we decided not to go.
John,| come here a moment.
Mary,| having heard the news,| promptly fainted.
John, a notorious glutton,| ate the apple.
John is a clever,| ambitious,| young man.
John is a clever man| and ambitious as well.

5. Attached questions following a SVCA structure.

John ate the apple,|didn't he?

Note that words or word groups that function as sentence modifiers following a SVCA structure do not form separate phrase stress groups but adhere to the preceding stress group.

John ate the apple, of course.
"Let's go to the cinema," said Joan to her sister.

The stress pattern of the phrase stress group is parallel to that of the word, lexical words in phrases corresponding to root morphemes in words, and structural words in phrases to affixes in words. As on the word level three functional degrees of stress can be distinguished with only one primary stress to each phrase. The primary stress of the phrase falls on the lexical word that is the focus of the semantic meaning of the phrase while other lexical words carry secondary and structural words tertiary stress. Note the parallel structures of functional stress in the following pairs of words and phrases:

ĭ líke ĭt. rĕwárdĭng
Jòhn ĭs lúckў. ìnsŭbstántĭal

But whereas on the word level primary stress is a property of

the word as a lexical unit and subject to no interpretation, phrase stress must be determined for every phrase in a text on the basis of syntactic rules. The following are some general principles that cover the majority of cases:

1. Primary stress falls on the last lexical word in the phrase stress group.

Give them to John.
The director knew that we'd be late.
I'll ask them to prepare it for you.

2. When the complement or the adverbial of a SVCA is followed by a sentence modifier, the primary phrase stress falls on the complement. The distinction between an adverbial and a sentence modifier and the effect of the difference on the location of primary stress is illustrated by the following minimal pair:

John ate the apple, apparently.("apparently" modifies the SVC.)
John ate the apple greedily. ("greedily" modifies the verb.)

As the location of primary phrase stress is determined by the nature of the phrase final structure, this must be identified by the receiver of the text as being either a verb complement, a complement modifier, a verb modifier or a sentence modifier. From the point of view of primary phrase stress location, the crucial distinction is between sentence modifier and all the other possible structures that may follow the verb phrase as determining the location of primary stress on the last lexical word in the phrase stress group or on the last lexical word in the preceding sentence element. The identification of sentence modifiers is complicated by the great variety of structural types that may occur in this position. Some examples of types of sentence modifier are as follows:

a) Single word and phrasal adverbials denoting time, place, frequency, opinion and certain connectives that may occur

in phrase final position.

The trains were very crówded yesterday.
The men refused to wórk there.
They arrived láte, as usual.
You haven't prepáred, obviously.
The error can be corrécted, however.

b) Relative clauses of the non-defining type that comment on rather than describe the referent and infinitive clauses with a similar function:

We were chilled by the wínd that was blowing.
I have a quéstion to ask.

c) Reporting clauses[7] including opinions and attitudes of the speaker in phrase final position.

This is not for publicátion, you understand.
You're getting márried, I hear.
"Am I in time for the tráin?" he asked breathlessly.

3. When the phrase final structure is a word or word group that modifies an element in the SVCA; i.e., the verb phrase or the complement, primary phrase stress falls on the last word in the modifier.

a) The complement may be modified by a variety of structures some of which are illustrated as follows:

I saw your friend Jóhn.
They were annoyed by the people upstáirs.
He found the test very difficult.
We need a man who can do the wórk.
This is the place I tóld you about.

b) Verb phrase modifiers may take some of the following forms:

He finished the work quíckly.
He finished the book before going abróad.
We painted the house gréen.

Stress operates beyond the phrase on what I shall term the text level to link sentences and groups of sentences in connected discourse. Although the operation of stress on this level is no longer describable in terms of three functional degrees as it was on the word and phrase levels, it is still based upon the principle that increased degrees of stress correlate with increased degrees of semantic meaning thereby putting the message of utterances into focus.

This characteristic of English stress as a cohesive device on the level of the text is a natural extension of the way in which it functions on the lower levels. For it is due to the firm association of stress with semantic focus in the word and the phrase that it is then available on the text level where it is the primary signal of semantic focus. On the word level primary stress is partly identified with the root or semantic nucleus of the word. On the phrase level there is a more conscious identification of primary stress with the syntactic nucleus of the phrase. But on each of these levels stress is a secondary or associated signal.

On the text level, however, this association of stress with semantic focus permits the shift of focus to any element in the text; so that in textual stress it is no longer a matter of structural and lexical elements in the word or phrase, but of the structural or semantic function of any element in the phrase considered as a component of the text and as signalled by the degree of stress it carries. Thus a lexical word in primary phrase stress position may be reduced to secondary stress; a

lexical word in other than primary phrase stress position may be increased to primary stress; a structural word may be assigned primary stress; any syllable of a word may receive primary stress regardless of its normal word stress pattern.

The operation of stress on the text level can be characterized as a transformation applied to the phrase stress pattern as established by phrase stress rules. The transformation de-stresses the primary phrase stress element and shifts it to an adjacent element in the phrase, most often the preceding word. The de-stressed element is an anaphoric reference to a theme already established in the discourse (defined as the set of propositions of the text) and the stressed element foregrounds new information developing the discourse.

The recognition of an item in a phrase as a reference to a previous phrase calling for the application of what I shall term the "anaphoric stress transformation" involves the receiver of the text in an analysis of the discourse. For both the reference in the phrase to which anaphoric stress is applied and the referent (the item referred to in a previous section of the text) may assume various forms.

Three types of reference can be distinguished:

1. The reference is a repetition of a key word in the referent.
2. The reference is a classification or description of the referent.
3. The reference is a paraphrase of the referent.

Referents can also be classified into three basic types:

1. The referent is focussed in a single word.
2. The referent is diffused throughout one or more phrases.
3. The referent is not expressed in the text but implied in the discourse.

The different types of reference and referent occur in various combinations. Anaphoric stress is thus a cohesive device that expresses the relationship between referents and references thereby relating one bit of text to the next.

One of the most common types of anaphoric stress and the one most easily recognized is that in which the referent is focussed in a single word and the reference is a repetition of the referent.
(Note: in the examples that follow the reference is italicized while the primary stress is indicated in bold type.)

1. A: I see it's still raining.
2. B: Yes, I'm SORRY it's raining because my holidays are starting tomorrow.

In 1 primary stress falls on "raining" as specified by phrase stress rules which assign primary stress to the last lexical word in the phrase stress group. In 2 however, "raining" is anaphoric, referring to the same item in 1. It is therefore de-stressed by the anaphoric stress transformation which then assigns primary stress to the preceding lexical word "sorry" as new information related to the theme.

A reference may be expressed by a word or phrase that describes or is in some way associated with the referent.

3. A: How about having lunch at Chez Maude today?
4. B: Fine. I LOVE French food.

"French food" in 4 is equated with "Chez Maude" in 3, setting up the referent-reference relationship that triggers the application of the anaphoric stress transformation so that the compound "French food" is de-stressed and primary anaphoric stress shifts to "love" the preceding item that adds information developing the discourse.

A common feature of journalistic style is the type of anaphoric stress in which the reference classifies or describes a focussed referent.

5. Three species of crocodile believed to be on the verge of extinction are now out of danger and experiencing a population explosion in India. In a drive to SAVE the reptiles the Indian Government has set up sanctuaries where they can live and breed safely.

In the above example "reptiles" as a classification of "crocodile" is recognized as a reference. As such, it is de-stressed and the primary stress shifts to the preceding word "save" as new information developing the discourse.

The connecting links in a text are more difficult to identify when the referent is diffused so that there is no obvious parallel between a word or word group in one textual unit and a succeeding one. Test readings of the following text by native speakers showed that in such a case the referent-reference relationship is not always immediately apparent.

6. I've always wanted a holiday in Africa to photgraph the animals. My friend had a SIMILAR idea.

A comparative reading in which the anaphoric stress transformation is not applied and primary stress is applied to "idea" the last lexical word, will show that when due consideration is not given to anaphoric stress, sentence linkage is not as satisfactorily achieved. In this instance "idea" is meaningful only as a reference to the entire complement of "wanted" in the previous sentence. If it is allowed primary stress, its relationship to the discourse is obscured.

When both the referent and the reference are diffused, the reference becomes a paraphrase of the referent. Such a paraphrase will often take the form of a restatement of a theme from the point of view of a responding speaker.

7. A: You're going to a lot of trouble to get rid of me.
8. B: It isn't EASY to pass on bad coins.

The linkage here is of a more complex nature. As in the pre-

vious examples a referent-reference relationship is established, in this case between "to get rid of" in 7 as the referent and "to pass on bad coins" in 8 as the reference. Here the reference can be considered a paraphrase in the sense that B might have said,"It isn't easy to get rid of someone like you" with anaphoric stress placing the primary stress on "easy" as in the original dialogue. The phrase that B actually uses performs the same reference function that a repetition would, but at the same time restates the theme from B's point of view.

A reference may have no explicit referent in the text. In such a case an implied referent similar in form to the reference must serve as the source for the application of anaphoric stress in the reference section of the text. This may occur in a dialogic text when a response to a question or comment is made in terms of the respondent's interpretation rather than of the words of the previous utterance.

9. A: It's three o'clock. We'd better hurry.
10. B: MY watch makes it two.

Here it would seem to be a question of an implied paraphrase of 9 as, "My watch makes it three o'clock." The response in 10 then de-stresses "watch" as a repetition and assigns primary stress to "my", the contradiction constituting the development of the discourse. This example is also illustrative of the occurrence of structural words carrying primary stress as a result of the application of the anaphoric stress transformation. In such cases the semantic meaning of the structural word becomes dominant.

11. A: What do you want to eat?
12. B: What do YOU want to eat?

In the above example the de-stressing of "eat" in 12 is a reference to the same item in 11. The primary stress in 12 then shifts to "you" by operation of the anaphoric stress trans-

formation. Here we can see a clear distinction between the structural use of a pronoun and the same item used lexically in textual stress (as opposed to phrase stress). For whereas in 11 "you" functions primarily as the grammatical subject, in 12 "YOU" assumes the function of a lexical word representing new information that develops the discourse. In this case the development takes the form of a shift of focus from the decision to be made in 11 to the decision making agent in 12.

The texts cited thus far have all been instances where the application of the anaphoric stress transformation is requisite to a correct or at least an optimally clear interpretation of the text. We note that as the intention of the text producer is clarified by lexical and/or syntactic cues, no special orthographic signs are necessary for the native speaking reader. The occurrence of such signs in a text signals the presence of prosodic features expressing a type of emphasis other than anaphoric stress. We now approach the borderline that divides stress that expresses information from intonation that expresses attitude. One further type of emphasis that can still be regarded as stress is illustrated as follows:

13. A: What did you think of the film?
14. B: We liked it.
15. B: WE <u>liked</u> it.

In the above example 14 and 15 are considered as possible responses to 13. We note first of all that the location of primary stress in 14 follows the rules for phrase stress which assign primary stress to the last lexical word in the phrase stress group. This is the interpretation the reader would normally make as there is no textual justification for anaphoric stress. If the producer of the text expects 15 as a response a special orthographic sign is necessary. In normal orthography "we" would be italicized. The de-stressing of

"liked" in 15 appears to be a reference of implication (see examples 9,10) as there is no referent in 13. However, an implied paraphrase of 13 as "How did you like the film?" would elicit 14 rather than 15. To produce 15 it is necessary to produce 14 as an intermediary stage preceding the application of the anaphoric stress transformation. The problem remains as to the factors that would condition the transformation of 14 to 15. That these factors lie outside the text is evidenced by the fact that the transformation is optional. Furthermore, they are reflected in the difference in meaning of the two utterances.

The link between 13 and 14 is the pronoun "it" the reference for "film" in 13. The stressing of "liked" in 14 is clearly marked in that it is the only lexical word and therefore the only word that qualifies for primary phrase stress. We note that were "film" to be substituted for "it" in 14, primary phrase stress would still fall on "liked". For in that case it would be recognized as a repetition type reference calling for the application of the anaphoric stress transformation (see examples 1,2).

The link between 13 and 15 is the same as that between 13 and 14; namely, the pronoun "it" referring to "film". Therefore the de-stressing of "liked" and the shift of primary stress to "we" can only refer to a hypothetical 14 to which the anaphoric stress transformation has been applied. It will be recalled that in a transformed stress group the de-stressed element refers to the focussed element in the previous utterance while the stressed element comments on or develops the theme. In the case of 15 however, the de-stressed "liked" refers not to the text but to the focussed "liked" in hypothetical 14 while the stressed "we", rather than developing a theme in the discourse, refers outside the discourse to items in paradigmatic relation to it; that is, to other possible grammatical subjects. A new theme is thereby introduced, that of a difference of opinions. Thus 13,15 as a text illustrates the functioning of stress

on the highest level as a device for introducing new thematic material into the discourse.

In this discussion of stress I have tried to show how the grammar of English incorporates rules for the distribution of functionally contrastive degrees of stress associated with the distinction of semantic and grammatical meaning. These rules operate on every level of language from the word to the discourse. As there is virtually no graphic representation of stress it must be supplied by the receiver of the text from his knowledge of the rules for stress on each of the various levels of language. The recognition of stress as a grammatical device as distinct from intonation, and the formulation of rules for stress on the various levels of language contributes to the description of English and to the effectiveness of language materials based thereon. Moreover, stress analysis should prove a fruitful approach to the study of literary texts.

NOTES

[1]See Deutsch, 1976. Follows the approach developed by structural linguists which treated stress as an aspect of intonation.

[2]See Halle and Keyser, pp. 3-14 where the assumption is made that stress assignment follows the phonetic property of vowels.

[3]See Krashen. Distinguishes between subconscious language acquisition and conscious language learning.

[4]Descriptions of English phonology such as those of Pike, Trager and Smith, etc. distinguished four stress phonemes.

[5]See Halle and Keyser, pp. 88-89. The principles of English stress cited for O.E. can be applied to Modern English.

[6]Nonce-word occurs in Lewis Carroll's Alice's Adventures in Wonderland.

[7]See Leech and Svartvik, p. 12 for the term "reporting clause".

REFERENCES

Ball, W.J. Selected Texts of Modern Dialogue. London: Longmans, Green and Co., Ltd., 1965.

Beaugrande, Robert de, Wolfgang Dressler. Introduction to Text Linguistics. London: Longman Group Ltd., 1981.

Bolinger, Dwight, ed. Intonation. Middlesex, England: Penguin Books, Ltd., 1970.

Crystal, David, Derek Davy. Investigating English Style. London: Longman Group Ltd., 1969.

Deutsch, George B. "Intonation and Meaning in English", Bulletin of Seisen Women's College 24, 1-13, 1976.

Francis, Nelson W. The Structure of American English. New York: The Ronald Press Co., 1956.

Halle, Morris, S.J. Keyser. English Stress. New York: Harper and Row, Publishers, 1971.

Krashen, Stephen D. Second Language Acquisition and Second Language Learning. Oxford: Pergamon Press, Ltd., 1981.

Ladd, Robert D. The Structure of Intonational Meaning. Bloomington: Indiana University Press, 1978.

Leech, Geoffrey, Jan Svartvik. A Communicative Grammar of English. London: Longmans, Green and Co., 1975.

Pike, Kenneth L. Phonemics. Ann Arbor: University of Michigan Press, 1947.

Pike, Kenneth L. Phonetics. Ann Arbor: University of Michigan Press, 1943.

Pike, Kenneth L. "Grammatical Prerequisites to Phonemic Analysis", Word 3, pp 151-159, 1947.

Trager, George L, H.L. Smith. An Outline of English Structure. Norman, Oklahoma: Battenburg Press, 1951.